

REMARKS

Claim 1 has been amended to more clearly define Applicant's invention. In particular, a step is recited for preparing the lyogel that is introduced into the reactor and subsequently surface-silylated. The method by which a lyogel is prepared is important in a process for preparing organically modified aerogels with permanently hydrophobic surface groups. Lentz (U.S. Patent No. 3,122,520) teaches that the essence of his invention resides in the discovery that better reinforcing fillers are obtained when a silica hydrosol is heated under strong acid conditions (the acid heating step) prior to reacting the gel with an organosilicon compound (the hydrophobing step) (see column 2, lines 15-21). Further, Lentz states that, for the purpose of his invention, "it is essential that the sol be heated at a temperature of from 50 to 250°C with sufficient strong mineral acid so that the pH of the sol during heating is one or less" (column 2, lines 35-38). Thus, as taught by Lentz, a specific method of preparing the gel must be followed.

Claim 1 of the present invention is herein amended to recite a preferred lyogel preparation method in which an aqueous water glass solution is brought to a pH value of ≤ 3 and is subsequently polycondensed via the addition of a base. Because a base is used to form the gel, the solution will not be at a pH of "one or less" as required by Lentz. This is further supported by the Examples of the present specification in which polycondensation occurs at a pH of 4.7. Furthermore, there is nothing in Lentz or Frank et al. (U.S. Patent No. 5,866,027) that would teach or suggest that this process should take place at a pH of greater than 1.

Thus, claim 1 has been amended as described herein. Support for the amendment can be found throughout the specification and claims as originally filed, and, in particular, in the specification page 13, 1st paragraph to page 14, 4th paragraph as well as original claim 4. No new matter has been added. Claim 1 has also been amended to recite the extent of washing, consistent with present claim 19, which has been found allowable. Claims 2-5 have been cancelled by this amendment, and, due to this cancellation, claims 6, 7, and 20 have been amended to provide proper claim dependency. Claims 8-11, 13-18, and 21 have been amended to provide proper antecedent basis for the recited steps of the process. Finally, claims 14-16 have also been amended to correct a grammatical error.

basis for the recited steps of the process. Finally, claims 14-16 have also been amended to correct a grammatical error.

Consideration of this amendment, prompt examination and allowance of this application is respectfully requested.

Respectfully submitted,



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